

ORDINANCE NO. 2021 - 09

ORDINANCE REGULATING SOLAR FARMS AND FACILITIES IN THE TOWN OF SHADELAND

WHEREAS, the Town of Shadeland wishes to add Section 19 of Title II to its Code of Ordinances,

NOW, THEREFORE, BE IT ORDAINED, by the Town Council of the Town of Shadeland, Indiana, that:

Section 19 is hereby added to Title II in its entirety as follows:

**19.01 Purpose.** The regulation of solar energy systems, solar farms and facilities and other solar energy devices is authorized by Indiana Code §36-7-2-2 and is designed to protect the public health, welfare and safety. The purpose of this Section is to protect the quality of life and property values of Shadeland residents as well as to plan for and regulate the use, improvement, and maintenance of real property and the location, condition, and maintenance of structures and other improvements. These regulations allow solar energy systems, solar farms and facilities and other solar energy devices in certain areas, and, therefore, do not have the effect of unreasonable restricting the use of such facilities other than for the preservation and protection of the public health and safety. It is policy of the Town of Shadeland to promote and encourage the use of solar energy systems and facilities, and these regulations are not intended to and do not have the effect of significantly increasing the cost of such systems, decreasing the efficiency of such systems, or impeding alternative systems of comparable cost and efficiency.

**19.02. Definitions.** For purpose of this Chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

**SOLAR ARAY (aka PHOTOVOLTAIC ARRAY)** – Two or more solar panels linked or connected together for the purpose of generating electricity.

**SOLAR ARAY, STEM STYLE** – A solar construction where each solar panel is attached to a support frame, bracket, stand or other apparatus or which utilizes a ballasted footer for panel stabilization. Tree style solar arrays are excluded from this category.

**SOLAR ARAY, TREE STYLE (aka SOLAR TREE)** – A solar array construction utilizing a common, vertical “trunk” frame to which extending panel support framework is constructed. This design often mimics the trunk and limb visual image of a natural tree. Tree style solar array units extend vertically a minimum of six feet (6’) from ground or trunk support foundation level. Framework and panel attaching mechanisms may be designed to rotate to maximize a panel or array’s conversion efficiency.

**SOLAR CELL (aka PHOTOVOLTAIC OR PHOTOELECTRIC CELL)** – An electrical device that converts sunlight, or other form of visible light, directly into electricity and is a building block of Solar Panels or used on their own as a power supply for calculators, lights, clocks or individual devices.

**SOLAR ENERGY SYSTEM (SES)** – Solar cells, panels and/or arrays, converters and solar infrastructure used to generate thermal heat or electricity.

**SOLAR ENERGY SYSTEM, COMMUNITY** – A Solar Energy System for use with single, two-family or multi-family private dwellings or with business, industrial or commercial applications where the electricity or thermal energy is consumed by individuals or businesses which may or may not be on the parcel upon which the system is located. Energy is not sold for wholesale purposes. This solar system is an accessory use designed to supply electricity or thermal energy to a community of properties. Solar energy components may be rooftop mounted, ground mounted or building integrated.

**SOLAR ENERGY SYSTEM, INDIVIDUAL** – A Solar Energy System for use with single, two-family or multi-family private dwellings or with business, industrial or commercial applications where the electricity or thermal energy is consumed on-site and not sold for commercial purposes. This solar energy system is an accessory use designed only to supply electricity or thermal energy to the principal and accessory uses of the site. Solar energy components may be rooftop mounted, ground mounted or building integrated.

**SOLAR FARM (SF): (aka PHOTOVOLTAIC POWER STATION, SOLAR PARK, SOLAR RANCH, SOLAR STATION or UTILITY-SCALE SOLAR STATION, CONCENTRATED SOLAR FACILITY)** – A commercial facility constructed with a configuration of Solar Arrays for which the principal purpose is to generate electricity to be sold on a wholesale basis for ultimate placement on the Nation's electrical grid. This is the principal use for the parcel on which it is located.

**SOLAR FARM COMPOUND** – The area of land upon which is placed the solar panels, solar arrays, inverters, solar panel/array support and connecting brackets, structures and wiring as well as any other equipment associated with a Solar Farm installation. Land used for the infrastructure required to connect to the utility service is not included.

**SOLAR FARM, CONCENTRATED (CSP)** – A Solar Farm which incorporates mirrors and/or lenses to concentrate sunlight as a component of their operation.

**SOLAR INSTALLATION, FLOATING** – A solar energy system which is constructed on floaters or raft type structures designed to be placed on water surfaces or in areas prone to flooding where the system is designed to deal with movement and changes in water levels associated with the subject site.

**SOLAR INSTALLATION, GROUND MOUNT** – A solar energy system which uses stem style solar arrays where no point of the solar array exceeds 10 feet (10') in height. In stem style solar arrays, panels are mounted essentially parallel to the earth's surface in a

horizontal configuration. In a stem style solar array, the tallest point of the array extends no higher than ten feet (10') from the ground or base support level. Framework and panel attaching mechanisms may be designed to rotate to maximize a panel or array's conversion efficiency.

**SOLAR INSTALLATION, INTEGRATED** – A solar energy system where solar panels and/or arrays are integrated within the design of the exterior components of any building or structure, excludes Rooftop Installation.

**SOLAR INSTALLATION, ROOFTOP** – A solar energy system where all solar panels or arrays are mounted via some type of framing or bracketry directly to the roof of a primary or accessory buildings or structures. Also included are systems utilizing Solar Shingles.

**SOLAR PANEL (aka PHOTOVOLTAIC MODULE)** – A bank of interconnected solar cells combined into the form of a panel normally contained by a metal or plastic perimeter frame.

**SOLAR SHINGLE (PHOTOVOLTAIC SHINGLE)** – Solar panels or solar modules designed to look like and function as conventional roofing materials, such as asphalt or slate, while also producing electricity. These shingles are constructed with the same durability and flexibility as regular shingles and are designed to withstand rain, wind and hail. Solar shingle installations can also be known as building-integrated photovoltaics.

**19.03. Permitted Districts.** Solar energy systems, solar farms and facilities are allowed only in an Industrial Zoning District.

**19.04. Exemptions.** Solar devices which are part of the structure of a residence or part of the permitted yard of a residence and which are designed to provide electrical power, heating or cooling, or water heating only for the residence are exempt from this regulation.

**19.05. Setbacks.** All ground-mounted solar panels or arrays must be at least thirty (30) feet from any property line, at least one hundred (100) feet from the center of any road, street, highway, alley or public way, at least two hundred (200) feet from the property line if adjoined by property that is zoned residential, and at least two hundred (200) feet from the property line if adjoined by property that is zoned agricultural which has a single family dwelling within five hundred (500) feet of the solar panels or arrays. When the solar facilities for a single project encompass multiple parcels, there is no required setback from a property line for the internal property lines in the project. Security fencing, access roads, and distribution poles and wires may be located within the set-backs but may not be located in a road right-of-way.

**19.06. Height Limitations.** Ground-mounted solar panels or arrays may not exceed twenty (20) feet in height as measured from the natural grade to the top of the panel or array when at its highest position.

**19.07. Permits.** Each property owner or his/her designee must obtain a solar farm permit prior to constructing, operating or maintaining a solar energy system, farm or facility. In order to obtain a

permit, the applicant must submit to the Planning Committee a conceptual site plan which includes the general footprint of the solar energy system, farm or facility the number of panels, the generating capacity, the location of all fences, electrical poles and lines, the location of all other equipment and structures, the location of any and all underground electrical lines, facilities and structures, the location of all access roads, rights-of-way and easements, drainage plan for the site which complies with any applicable Storm Water Ordinance, a road use plan for construction, specifications for equipment , compliance with all applicable industry standards and safety codes, Federal Aviation Administration rules and regulations, and Federal Communications Commission rules and regulations. Within 30 days of receipt of an application for a permit, the Planning Committee will determine whether the application is complete. The Planning Committee will notify the applicant in writing of its determination. If the application is complete, the application will be reviewed by the full Planning Committee as a request for a development plan review, as provided for in Section 19.08. If the application is not complete, the applicant must provide to the Planning Committee the supplemental information within sixty (60) days. If the applicant fails to provide the supplemental material for the application in a timely manner, the application will be dismissed.

**19.08. Development Plan Review.** The Planning Committee will conduct a public hearing on the application as a request for a development plan review.

**19.09. Issuance of Permit.** If the Planning Committee approves the development plan and the applicant has satisfied all of the requirements of this Ordinance, and all other applicable ordinances, rules and regulations, the Planning Committee will issue an improvement location permit.

**19.10. Permit Fee.** At the time of submission, the applicant will submit to the Planning Committee Administrator a nonrefundable fee in the amount of \$250.00, plus the following additional fee for solar energy systems, farms or facilities that are more than one hundred (100) acres:

Acres	Additional Fee
100+ to 200	\$50
200+ to 300	\$100
300+ to 400	\$150
400+ to 500	\$200
500+ to 600	\$250
600+ to 700	\$300
700+ to 800	\$350
800+ to 900	\$400
900+ to 1,000	\$450
1,000+	\$500

**19.11. Fencing.** All solar energy systems, farms and facilities shall be surrounded by a security fence not less than eight (8) feet in height and not more than twelve (12) feet in height in order to prevent unauthorized access. All gates will be locked. The applicant will place a sign, not to

exceed eight square feet in area, which contains the name and address of the operator and an emergency telephone contact number for the operator.

**19.12. Exterior Lighting.** All exterior safety lighting will be developed in a manner which precludes light trespass onto adjoining parcels and which is limited to the amount of light needed for maintenance, safety and security.

**19.13. Legal Drains.** No solar energy system, farm or facility may encroach upon the seventy-five (75) easement of any legal drain or ditch. If the construction of the solar energy system, farm or facility requires the relocation of any legal drain or ditch, such relocation must be approved by the Tippecanoe County Drainage Board.

**19.14. Private and Mutual Drains.** No solar energy system, farm or facility may encroach upon any private or mutual drain or ditch. If the construction of the solar energy system, farm or facility requires the relocation of any private or mutual drain or ditch, such relocation must be approved by the parties to the private or mutual drain or ditch, performed at the expense of the operator, and relocated in a manner so as not to materially impede the function of the drain or ditch. This obligation to refrain from encroaching upon any private or mutual drain or ditch continues and applies even if the encroachment is discovered after construction of the project.

**19.15. Damage to Roads.** The applicant will be allowed to use Town roads to transport equipment, materials and supplies to the location for construction. Prior to the issuance of a permit, the applicant must provide the Planning Committee a road use plan. This plan must be approved by the Planning Committee. The applicant will be responsible for any road and ditch damage caused by the applicant during construction and operations. In order to ensure the applicant's financial responsibility, the applicant must provide to the Town a bond, letter of credit or other surety in an amount determined by the Town to be sufficient to cover the expenses of remediation of damages. The amount of the bond, letter of credit or other surety required must be the Town's estimate of road damages, caused during the construction of solar projects. If the applicant disagrees with the determination by the Town of the amount of the bond, letter of credit or other surety, the applicant may appeal this determination to the Town Council. This bond, letter of credit or surety must be in an amount and in a form acceptable to the Town. The bond shall be payable to the Town. After construction of the project, the Town will inspect the roads and ditches contained in the road use plan and determine whether damage has resulted because of the applicant's project. If the Town finds that such damage has occurred, the Town will provide written notice to the applicant of the estimated cost of the remediation. The Town will cause the remediation to occur, and the Town will certify to the applicant the expense of the remediation. The applicant will pay to the Town the certified amount within sixty (60) days of receipt of the notice of the certified amount. If the applicant fails to timely pay the remediation expense, the Town will be entitled to file a claim with the Bond Company or holder of the letter of credit or other surety and be paid from the bond, letter of credit or other surety.

**19.16. Enforcement.** In the event of a violation of this Section, the Town may enforce the Ordinance using the rights and remedies provided for in the Zoning Ordinance.

**19.17. Decommissioning and Reclamation.** Any decommissioning of a Solar Farm shall be done in compliance with below provisions:

### **I. INTRO.**

- A. Project Background.** Any solar photovoltaic power array is anticipated to operate for a period of no less than twenty (20) years. It is anticipated that any project may use the existing technology up to an additional twenty (20) years, for a total operating period of forty (40) years. At the completion of its operating life, the Project may either be redeveloped with modern equipment, or it will be decommissioned and removed from the Land and the Premises in accordance with any Lease and this Decommissioning Plan (the “Plan”).
- B. Objectives.** The objective of this Plan is to assure and provide the requisite financial surety to guarantee the decommissioning of the Project and the performance and completion of the Restoration Obligations.
- C. Plan Conditions.** Prior to commencing with the Restoration Obligations or any decommissioning activities in accordance with this Plan, Developer will provide documentation to process the appropriate permit(s). If the Project is to be redeveloped, a new building plan permit will be processed before any installation of new equipment and improvements. The Restoration Obligations and decommissioning the Project will allow the parcels that were changed under the Project’s (CUP/SUP) to be returned to their original zoning classifications.

### **II. DECOMMISSIONING OF FACILITY AFTER CEASING OPERATION.**

- A. General Environmental Protection.** During the performance of the decommissioning and Restoration Obligations, general environmental protection and mitigation measures shall be implemented. Many activities during the performance of decommissioning and the Restoration Obligations will be comparable to the construction phase, including the use of heavy equipment on site, preparing staging areas, and restoring constructible areas.
- B. Pre-Decommissioning Activities.** Prior to engaging decommissioning activities and the Restoration Obligations, Developer will provide documentation to process the appropriate permits in accordance with all relevant county, state and federal statutes in place at the time of decommissioning and performing the Restoration Obligations.

Prior to any decommissioning, performance of the Restoration Obligations or removal of equipment staging areas will be delineated as appropriate. At the end of the Project’s useful life, it will first be de-energized and isolated from all external electrical lines. All decommissioning activities and Restoration Obligations will be conducted within designated areas; this includes ensuring that vehicles and personnel stay within the demarcated areas. Work to decommission the collector lines and Project-owned transmission lines will be

conducted within the boundaries of the municipal road allowance and appropriate private lands.

**C. Equipment Decommissioning and Removal.** The basic components of the Project include, but are not limited to, photovoltaic (PV) modules, mechanical racking system, electrical cabling, inverter racks, transformers and concrete pads as described below.

- **Modules:** The modules will be removed by hand and placed in a truck to be returned for recycling or disposal as described below in Section D.
- **Mechanical racking system:** The mechanical racking system will be removed with an excavator with a demolition thumb. The recyclable metal will be loaded on trucks and hauled away.
- **Inverters Racks and Inverters:** The inverters and its racks will be removed by hand and loaded on trucks for recycling in compliance with Section E.
- **Transformers:** Transformers will be removed in compliance with Section E and then loaded on to a truck with a crane and sent for recycling.
- **Concrete pads:** The equipment and improvements will be disconnected and transported off site by truck. The concrete foundations and support pads will be broken up by mechanical equipment (backhoe-hydraulic hammer/shovel, jackhammer), loaded onto dump trucks and removed from the Land and the Premises. Smaller pre-cast concrete support pads and/or pre-manufactured metal skids will be removed intact by cranes and loaded onto trucks for reuse, or will be broken up and hauled away by dump trucks.
- For the avoidance of doubt, all (i) underground transmission, distribution and collection cables (including fiber optic cables), conduits, wire and/or lines which carry electrical energy to and/or from the Land and/or the Premises; or (ii) underground communication cables (including fiber optic cables), conduits, wire and/or lines which carry communications of any nature located below the surface of the Land and/or the Premises at a depth of greater than thirty-six (36) inches shall not be included within the Plan nor shall Developer be required to remove the same. Notwithstanding anything contained in the Lease or this Plan to the contrary, Developer shall be required to remove all improvements constructed of concrete, regardless of depth.

**D. PV Module Collection and Recycling.** All modules will be disconnected, removed from the trackers, packaged and transported off the Land and the Premises to a designated location for resale, recycling or disposal. Any disposal or recycling will be done in accordance with applicable laws and requirements. The connecting underground cables and the junction boxes will be de-energized, disconnected, and removed. The mechanical racking system supporting the PV modules will be unbolted and dismantled by laborers using standard hand tools, possibly assisted by small portable cranes. All support

structures will be completely removed by mechanical equipment and transported off of the Land and the Premises for salvage or reuse. Any demolition debris that is not salvageable will be transported by truck to an offsite approved disposal area. Other salvageable equipment and/or material will be removed from the Land and the Premises for resale, scrap value or disposal.

- E. Electrical Equipment and Inverters.** All decommissioning of electrical devices, equipment, and wiring/cabling will be in accordance with local, state and federal laws. Any electrical decommissioning will include obtaining required permits, and following applicable safety procedures before de-energizing, isolating, and disconnecting electrical devices, equipment and cabling. Decommissioning will require the complete removal of the electrical equipment, including inverters, transformers, underground/aboveground cables and overhead lines. Equipment and material may be salvaged for resale or scrap value depending on the market conditions.
- F. Roads, Parking Area.** All access roads and the parking area will be removed to allow for the complete restoration and rehabilitation of these areas in accordance with the Restoration Obligations, unless Landowner provides written consent to retain these features. Typically, the granular base covering of these areas will be removed using a wheel loader to strip off the material and dump trucks to haul the aggregate to a recycling facility or approved disposal facility. The underlying subsoil, if exhibiting significant compaction (more likely for the site entrance road than the interior access roads), will then be diced using a tractor and disc attachment to restore the soil structure and to aerate the soil. Clean topsoil will be imported on site by dump truck, replaced over the area and leveled to match the existing grade.
- G. Other Components.** Unless retained for other purposes at the consent of Landowner, removal of all other facility components from the Land and Premises will be completed by Developer, including, but not limited to, surface drains, access road cross-culverts, and fencing. Anything deemed usable should be recovered and reused elsewhere. All other remaining components will be considered as waste and managed according to local, state, and federal laws. For safety and security, the security fence will be dismantled and removed from the Land and Premises after all major components, PV modules, tracker system and foundations have been removed.
- H. Site Restoration.** In addition to the Restoration Obligations, the following activities will be undertaken to restore the Premises to substantially its previous condition, as of the Construction Start Date:
- Site cleanup, re-grading to original contours and, if necessary, restoration of surface drainage swales and ditches.
  - Any trenches/drains excavated in connection with or as a result of the Project will be filled with suitable materials and leveled.
  - Any road or parking area will be removed completely, filled with suitable sub-grade material and leveled, all in accordance with Section F above.

- Any compacted ground will be tilled, moved with suitable sub-grade materials and leveled, all in accordance with Section F above.
- Topsoil will be spread as necessary to ensure suitable conditions for vegetation re-growth and reseeded with native seed mix to promote vegetation.
- All drainage tile system components shall be inspected, repaired and/or replaced to substantially the same conditions as of the Construction Start Date.

The project fence and existing fire access roads may remain in place upon written consent of landowner.

**I. Management of Wastes and Excess Materials.** All waste and excess materials will be disposed of in accordance with local, state and federal laws. Waste and excess materials that can be recycled under municipal programs will be done accordingly. Waste and excess materials that require disposal will be disposed of in a state licensed facility by a state licensed hauler.

**J. Emergency Response and Communications Plans.** During decommissioning and performance of the Restoration Obligations, Developer will coordinate with landowner, local authorities, the public, and others as required to provide them with information about the ongoing activities. Besides regular direct/indirect communication, signs will be posted at the Project facility to give information to the local public and visitors. The Tenant contact information (telephone number, email and mailing address) will be made public for those seeking more information about the decommissioning activities, the Restoration Obligations and/or reporting emergencies and complaints. All inquiries will be directed to the Developer Representative who will respond to any inquiry. In the event of an emergency, Developer will mobilize its resources to the Land and Premises to respond to the event. Personnel involved in decommissioning and performing the Restoration Obligations will be trained in the emergency response and communications procedures. Emergency response procedures will be prepared prior to decommissioning and performing the Restoration Obligations.

### **III. PROJECT DECOMMISSIONING COST ESTIMATE.**

**A. Cost Estimate.** Developer shall provide a detailed Decommissioning Cost Estimate, prepared by and Indiana Licensed Engineer, prior to the issuance of building permits, which shall include the following:

- The gross estimated cost to perform decommissioning as set forth in Section II above and the Restoration Obligations as set forth in the Lease (“**Gross Cost**”);
- An increase of the Gross Cost by ten percent (10%) in order to eliminate any discrepancy in cost estimation techniques (“**Contingency**”);
- The estimated resale and salvage values associated with the Project equipment (“**Salvage Value**”);

- A reduction from the Salvage Value by ten percent (10%) such that only ninety percent (90%) of the Salvage Value can be used as a credit against the Gross Cost and Contingency. The Salvage Value multiplied by ninety percent (90%) is the (“**Salvage Credit**”).

Thus, the Decommissioning Cost Estimate formula is:

Gross Cost + Contingency – Salvage Credit = the “**Decommissioning Cost Estimate**”.

The Decommissioning Cost Estimate shall be an amount equal to at least One Thousand Dollars (\$1,000.00) with inflation cause per acre.

The Decommissioning Cost Estimate shall include a table allocating the Decommissioning Cost Estimate across the Project area, based on the percentage of generating capacity in megawatts (MW) on each property (“**Allocation Areas**”). The Allocation Areas will be divided based upon the lease areas; however, Allocation Areas will reference the underlying land, in case ownership of the underlying land changes control during the life of the Project.

**B. Security.** Developer will provide and post-decommissioning security in a form as provided below and in an amount equal to the Decommissioning Cost Estimate (“**Decommissioning Security**”). Decommissioning Security shall be provided by Landowner prior to the Construction Start Date and shall be increased annually beginning after the 5<sup>th</sup> anniversary of the Rent Commencement Date on an assumed 2.5% annual inflation rate unless otherwise required by the applicable permitting authority.

The Decommissioning Security may be in one of the following forms: (i) cash to be held in escrow by the treasurer of the County in which the Premises is located or a bank or title company located in the County in which the Premises is located, (ii) a commercially available security instrument or performance bond, or (iii) a letter of credit from a financial institution reasonably acceptable to the County in which the Premises is located and which shall be irrevocable unless replaced with cash or other form of security reasonably acceptable to the County in which the Premises is located (each a form of “**Acceptable Credit Support**”) unless otherwise required by the applicable permitting authority.

In the event that security similar to the Decommissioning Security is required by any governmental entity, such security shall be credited against the Decommissioning Security, and landowner shall deposit the higher amount in the form of Acceptable Credit Support, which deposit may be split into more than one deposit to the extent reasonably required under the circumstances.

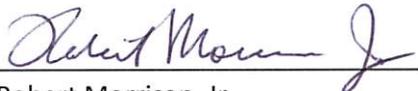
Developer and Landowner, if applicable, the applicable governmental entity and bank or title company shall enter into an escrow agreement to govern the review of the work required hereunder and pursuant to the Restoration Obligations, and the disbursement of the Decommissioning Security consistent with this

decommissioning plan and the Restoration Obligations. If the governmental entity requires, the escrow shall be administered by such governmental entity, and, if not so required, shall be administered by the bank or title company holding the Decommissioning Security or otherwise located in the County in which the Premises is situated unless otherwise required by the applicable permitting authority.

Adopted this 14th day of December, 2021.

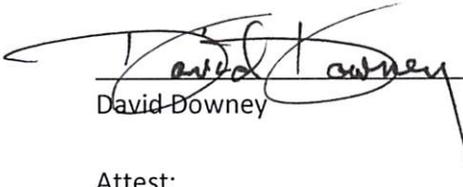
  
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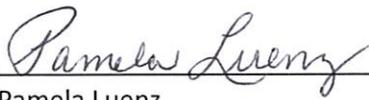
  
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Robert Morrison, Jr.

  
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David Vanderkleed

  
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Joshua Shives

  
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David Downey

Attest:

  
\_\_\_\_\_  
Pamela Luenz

  
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Charlene Brown, Clerk-Treasurer